

# Flood Resilience in Water Sensitive Cities

how do we reduce flood risk and why should we do it?

**Arnbjerg-Nielsen, Karsten**

*Published in:*
Water Sensitive Cities Conference Program

*Publication date:*
2014

*Document Version*
Publisher's PDF, also known as Version of record

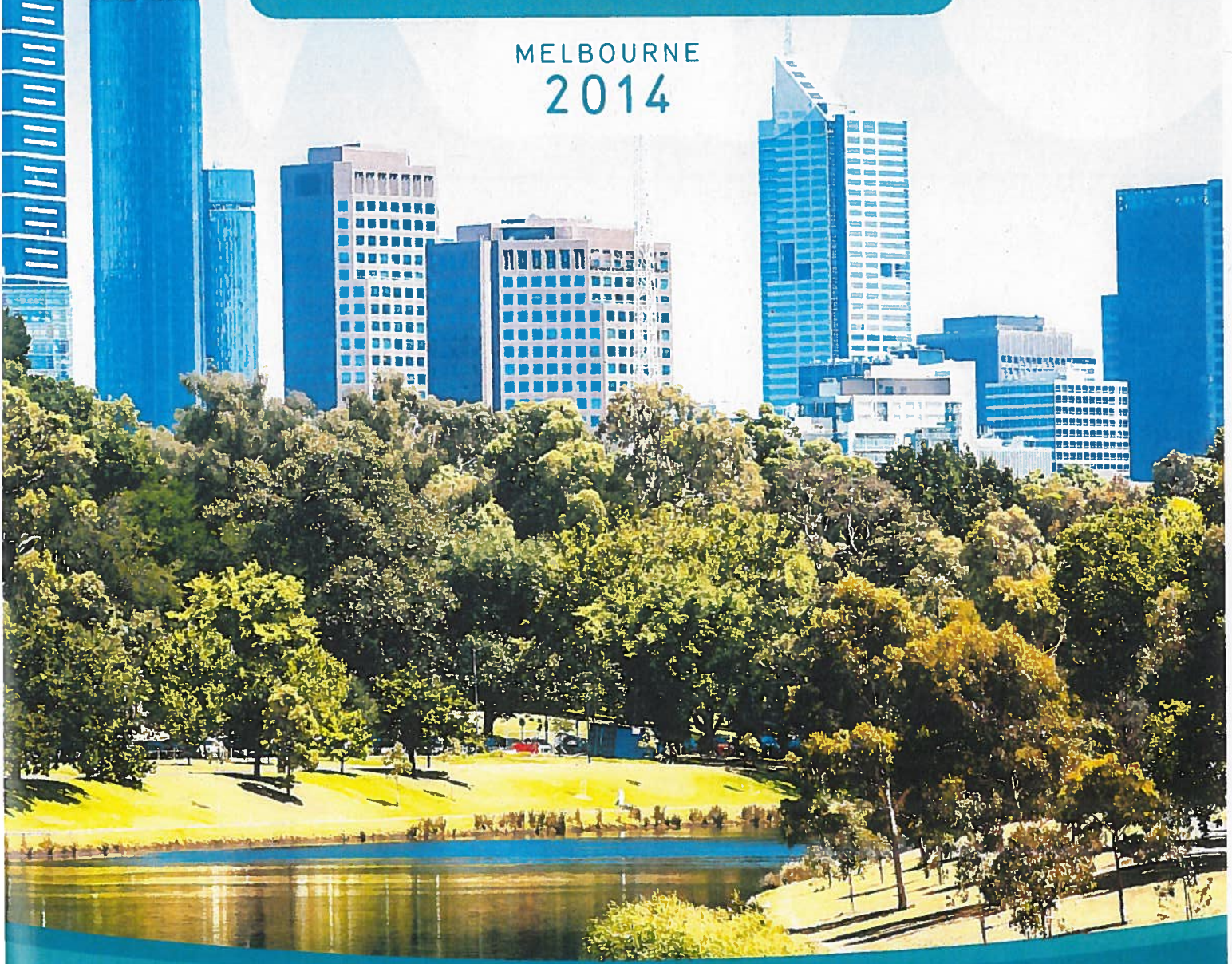
CRC for
Water Sensitive Cities

# Water Sensitive Cities

# CONFERENCE

# PROGRAM

MELBOURNE
2014



#WSCC2014

An Australian Government Initiative

CRC
AUSTRALIA

# Flood Resilience in Water Sensitive Cities – how do we reduce flood risk and why should we do it?

Karsten Arnberg-Nielsen[1,2]

1. Technical University of Denmark
2. Cooperative Research Centre for Water Sensitive Cities

The floods in 2011 increased the public awareness of flood risk considerably and it is clear that a water sensitive city should also be resilient to flooding. The project B4.1 focus on integrating flood risk analysis and flood risk management with other management practices whereby critical infrastructure and functions of the city is protected along with human assets and ecosystems.

The point of departure is geographically distributed hazard and risk maps of the present layout of the city. This information can guide future development of the city by ensuring that new developments are resilient. In existing areas flood risk management is more complex. Therefore a main component of the B4.1 project is to incorporate information from the hazard and risk maps into projections of how the city develops in the future by implicitly incorporating key development drivers such as climatic changes, population development, and people's preferences. This is obtained by establishing dynamical linking between DAnCE4Water and flood risk calculation tools provided by DHI.

The presentation will focus on the initial results of the projects illustrating how the flood risk has changed historically in a small catchment in Melbourne and how it may evolve in the future given different urban development trajectories. This example will be used to discuss how flood risk reduction and resilience can be added in this catchment and other, more complex catchments.